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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------|-------------|----------------------|---------------------|------------------|
| 10/585,055 | 10/14/2008 | Vesa Myllymaki | BGG0002US | 6188 |
| 23413 | 7590 | 01/12/2010 | EXAMINER | |
| CANTOR COLBURN, LLP | | | QIAN, YUN | |
| 20 Church Street | | | ART UNIT | PAPER NUMBER |
| 22nd Floor | | | 1793 | |
| Hartford, CT 06103 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 01/12/2010 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/585,055 | MYLLYMAKI ET AL. |
| | Examiner | Art Unit |
| | YUN QIAN | 1793 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 October 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-17 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Status of Claims

Claims 1-17 remain for examination.

Previous Grounds of Rejection

Regarding claims 1-3, 8-10, 12-15 and 17, the provisionally rejection on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 12,14 and 19 of copending Application No.10/568,458 stands.

Regarding claims 1-2, 9-14 and 17, the rejection under 35 U.S.C.103 (a) as being unpatentable over Swatloski et al. (WO 03/029329) stands.

Regarding claims 3-8 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swatloski et al. (WO 03/029329) in view of Bergstrom et al. (US 4,000,032) stands.

Response to Arguments

With regards to the previous Grounds of Rejection

Applicant's arguments filed October 23, 2009, with respect to claims 1-17, have been considered but are not persuasive. The examiner would like to take this opportunity to address the Applicant's arguments.

In response to applicant's arguments (Remarks, pages 6-8) that the recitation "depolymerization" has not been given patentable weight, the Examiner respectfully submits the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended

use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

In addition, since Swatloski et al. teaches the same process (dissolving polysaccharides, agitation, heating under microwave irradiation) and the same reagent (ionic liquid) as the instant claims, the regenerated products would expect to be the same as applicant's depolymerized material.

In response to applicant's arguments that one skilled in the art would not have a reasonable expectation of success for dissolving starch in ionic liquid, the Examiner respectfully submits the cellulose poses more challenges to hydrolyze due to its higher crystalline and lower solubility in solution. Since the composition of Swatloski can dissolve cellulose, it would expect one skilled in the art at the time the invention was made to apply the composition of Swatloski to starch as the instant claims as set forth in the office action mailed on June 24, 2009.

Furthermore, it is well established in the industry if one method for depolymerization works in a polyglucose material, one skilled in the art at the time the invention was made would apply such method into other polyglucoses.

As such, the motivation for dissolving starch in ionic liquid has been established.

Applicant's arguments (Remarks, pages 8-9) against the reference of Bergstrom et al. are not found persuasive.

Because, note that while Bergstrom et al. do not disclose all the features of the present claimed invention, Bergstrom et al. is used as secondary reference, and therefore, it is not necessary for this reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely processes utilizing pressure for the disruption or destruction of the natural structure of the long chain polymeric polysaccharides (lignocellulose), via microwave irradiation, and in combination with the reference of Swatloski et al, discloses the presently claimed invention as set forth in the office action mailed on June 24, 2009.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUN QIAN whose telephone number is (571)270-5834. The examiner can normally be reached on Monday-Thursday, 10:00am -4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit 1793

/YUN QIAN/
Examiner, Art Unit 1793